



Installation Manual

HERCULES

LED Landing/Taxi/WigWag

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1. PRODUCT INFO

AveoEngineering introduces the exclusive next-generation landing / taxi / wigwag light module.

Alright, alright, so there are some of you that want your plane to look like a Boeing Jumbo in the pattern, so we went to the skunkworks and using our incredible light emitting surface MaxiChip™ technology, we built you the ultimate disc landing light at 140,000 candela.

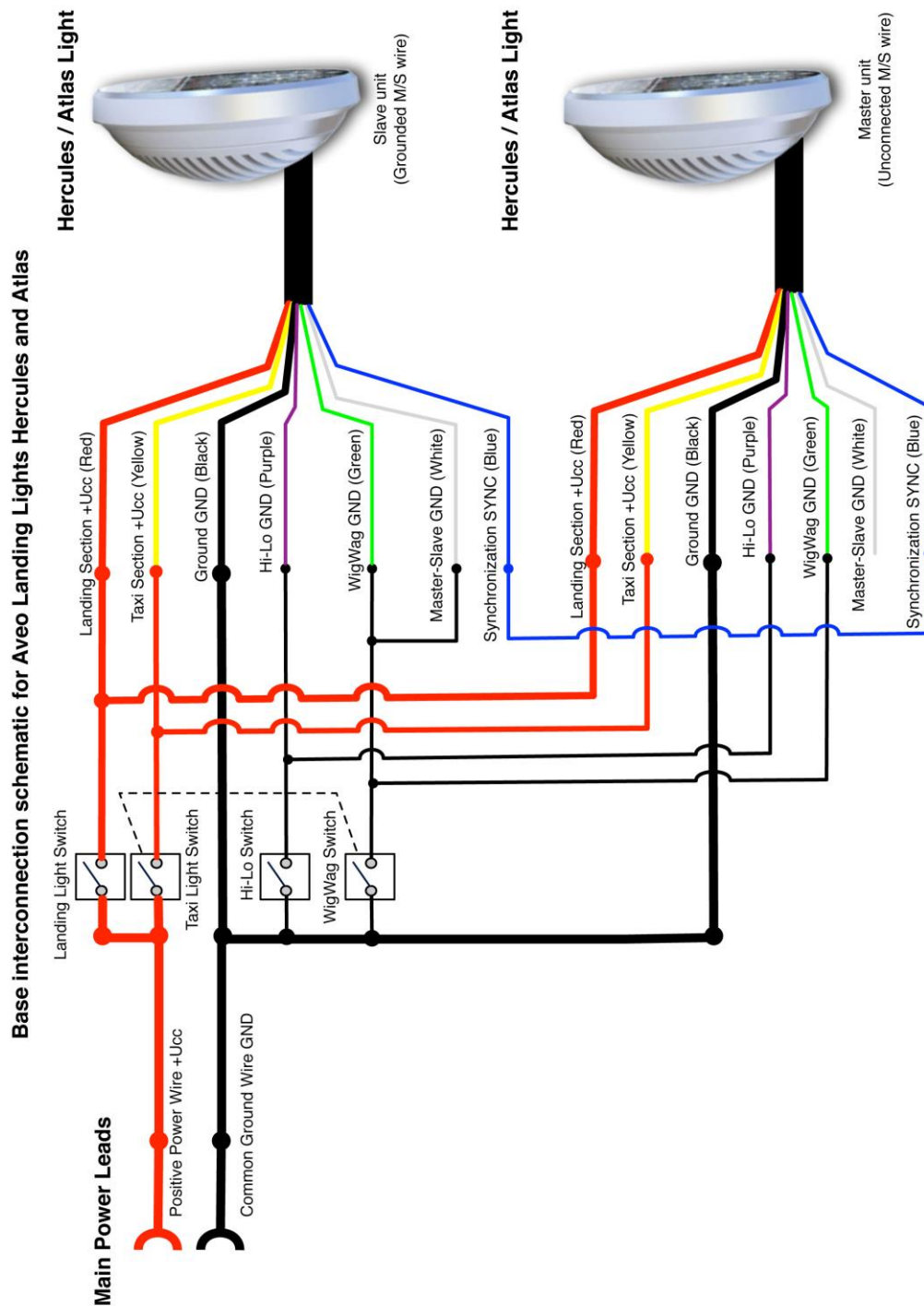
Environmentally Friendly

The AveoMaxx™ uses far less power than competitive products illuminated by mercury-arc, high intensity discharge, or halogen lamps, which means they help to reduce air pollution from carbon emissions. Mercury and Lead-free, this RoHS compliant environmentally - friendly technology helps reduce power consumption and the amount of hazardous waste entering the environment. Finally, a "green" aircraft light!

MAIN FEATURES:

- 3-in-1 System includes Landing, Taxi and WigWag
- FAA Approved chromacity
- Highly optimized optics including Aveo RockyReflector™ System
- Aveo PowerOptimizer™ advanced LED power supply and controller
- 70% lumen maintenance after 60,000 hours

2. WIRING DIAGRAM



3. TECHNICAL SPECIFICATION

HERCULES H16 Hi/Lo

P/N: AVE-H16MWSSNH-00A

AVE-H16MWSSOH-00A (with Aveo bracket)

- 1. Number of LED:** 16
- 2. Input voltage:** 9-36 VDC
- 3. Current:**
- *Taxi* max. 2.2A (12V)
 - *Landing* max. 3.5A (12V)
 - *Landing + Taxi* max. 5.6A (12V)
- 4. Output power [Hi/Low]:**
- *Taxi* 23/11W
 - *Landing* 38/19W
 - *Landing + Taxi* 61W/30W
- 5. Voltage protection:** 80V, both polarities
- 6. Under-voltage lockout:** 8.5V
- 7. Over-voltage lockout:** 37V
- 8. Ambient temperature:** from -55°C to +85°C / from -67°F to +185°F

9. Function description:

- a. 1x6 LEDs - Taxi, steady light
- b. 2x5 LEDs - Landing, steady light
- c. 1x6 + 2x5 - Taxi+Landing
- d. Synchro Master function
- e. Wig-Wag – Taxi LEDs only
- f. Master/Slave select sequential and simultaneous Wig-Wag mode
- g. High/Low power select for Landing and Taxi.

10. Beam Pattern:

- a. 12° Vert 12° Horizont – Landing
- b. 12° Vert 12° Horizont – Taxi

11. Light Intensity:

- a. 64.000 cd - Landing Hi
- b. 30.000 cd - Landing Lo
- c. 25.000 cd - Taxi Hi
- d. 10.000 cd - Taxi Lo
- e. 89.000 cd - Landing + Taxi Hi
- f. 40.000 cd - Landing + Taxi Lo

- 12. Color and shade:** cool white, 5000K – White
13. Programmable Soft-Start, less than 50mS
14. Overheat protection, temperature dependent decrement intensity
15. Weight: less than 1.08lbs (490 g) with Aveo bracket
16. Useful life: not less than 30.000,0 aircraft flight hours.
17. Dimension: 4.33" Round x 1.79" (D = 110mm, H = 45.7mm).
18. Material:

- a. Housing/Heatsink: Aluminum Alloy, natural anodizing
- b. Lens: Clear PMMA

HERCULES H20 Hi/Lo

P/N: AVE-H20MWSSNH-00A

AVE-H20MWSSOH-00A (with Aveo bracket)

- 1. Number of LED:** 20
2. Input voltage: 9-36 V DC
- 3. Current:**
- *Taxi* max. 2.2A (12V)
- *Landing* max. 4.9A (12V)
- *Landing + Taxi* max. 7.0A (12V)
- 4. Output power [Hi/Low]:**
- *Taxi* 23/11W
- *Landing* 53/26W
- *Landing + Taxi* 76W/36W
- 5. Voltage protection:** 80V, both polarities
6. Under-voltage lockout: 8.5V
7. Over-voltage lockout: 37V
8. Ambient temperature: from -55°C to +85°C / from -67°F to +185°F

9. Function description:

- a. 1x6 LEDs - Taxi, steady light
- b. 2x7 LEDs - Landing, steady light
- c. 1x6 + 2x7 - Taxi+Landing
- d. Synchro Master function
- e. Wig-Wag – Taxi LEDs only
- f. Master/Slave select sequential and simultaneous Wig-Wag mode
- g. High/Low power select for Landing and Taxi.

10. Beam Pattern:

- a. 12° Vert 12° Horizont – Landing

- b. 12° Vert 12° Horizont – Taxi

11. Light Intensity (calculated):

- a. 70.000 cd - Landing Hi
- b. 38.000 cd - Landing Lo
- c. 24.000 cd - Taxi Hi
- d. 14.000 cd - Taxi Lo
- e. 94.000 cd - Landing + Taxi Hi
- f. 52.000 cd - Landing + Taxi Lo

12. Color and shade: cool white, 5000K – White

13. Programmable Soft-Start, less than 50mS

14. Overheat protection, temperature dependent decrement intensity

15. Weight: less than 1.08lbs (490 g) with Aveo bracket

16. Useful life: not less than 30.000,0 aircraft flight hours.

17. Dimension: 4.33" Round x 1.79" (D = 110mm, H = 45.7mm).

18. Material:

- a. Housing/Heatsink: Aluminum Alloy, natural anodizing
- b. Lens: Clear PMMA

HERCULES H30

P/N: AVE-H30MWSSNH-00A

AVE-H30MWSSOH-00A (with Aveo bracket)

1. Number of LED: 30

2. Input voltage: 9-36 V DC

3. Current:

- *Taxi* max. 4.2A (12V)

- *Landing* max. 6.3A (12V)

- *Landing + Taxi* max. 10.5A (12V)

4. Output power [Hi/Low]:

- *Taxi* 45/21W

- *Landing* 68/33W

- *Landing + Taxi* 113W/54W

5. Voltage protection: 80V, both polarities

6. Under-voltage lockout: 8.5V

7. Over-voltage lockout: 37V

8. Ambient temperature: from -55°C to +85°C / from -67°F to +185°F

9. Function description:

- a. 1x12 LEDs - Taxi, steady light
- b. 2x9 LEDs - Landing, steady light

- c. 1x12 + 2x9 - Taxi+Landing
- d. Synchro Master function, active – low
- e. Wig-Wag – Taxi LEDs only
- f. Master/Slave select sequential and simultaneous Wig-Wag mode
- g. High/Low power select for Landing and Taxi.

10. Beam Pattern:

- a. 12° Vert 12° Horizont – Landing
- b. 12° Vert 12° Horizont – Taxi

11. Light Intensity (calculated):

- a. 104.000 cd - Landing Hi
- b. 56.000 cd - Landing Lo
- c. 62.000 cd - Taxi Hi
- d. 32.000 cd - Taxi Lo
- e. 166.000 cd - Landing + Taxi Hi
- f. 88.000 cd - Landing + Taxi Lo

12. Color and shade: cool white, 5000K – White

13. Programmable Soft-Start, less than 50mS

14. Overheat protection, temperature dependent decrement intensity

15. Weight: less than 1.08lbs (490 g) with Aveo bracket

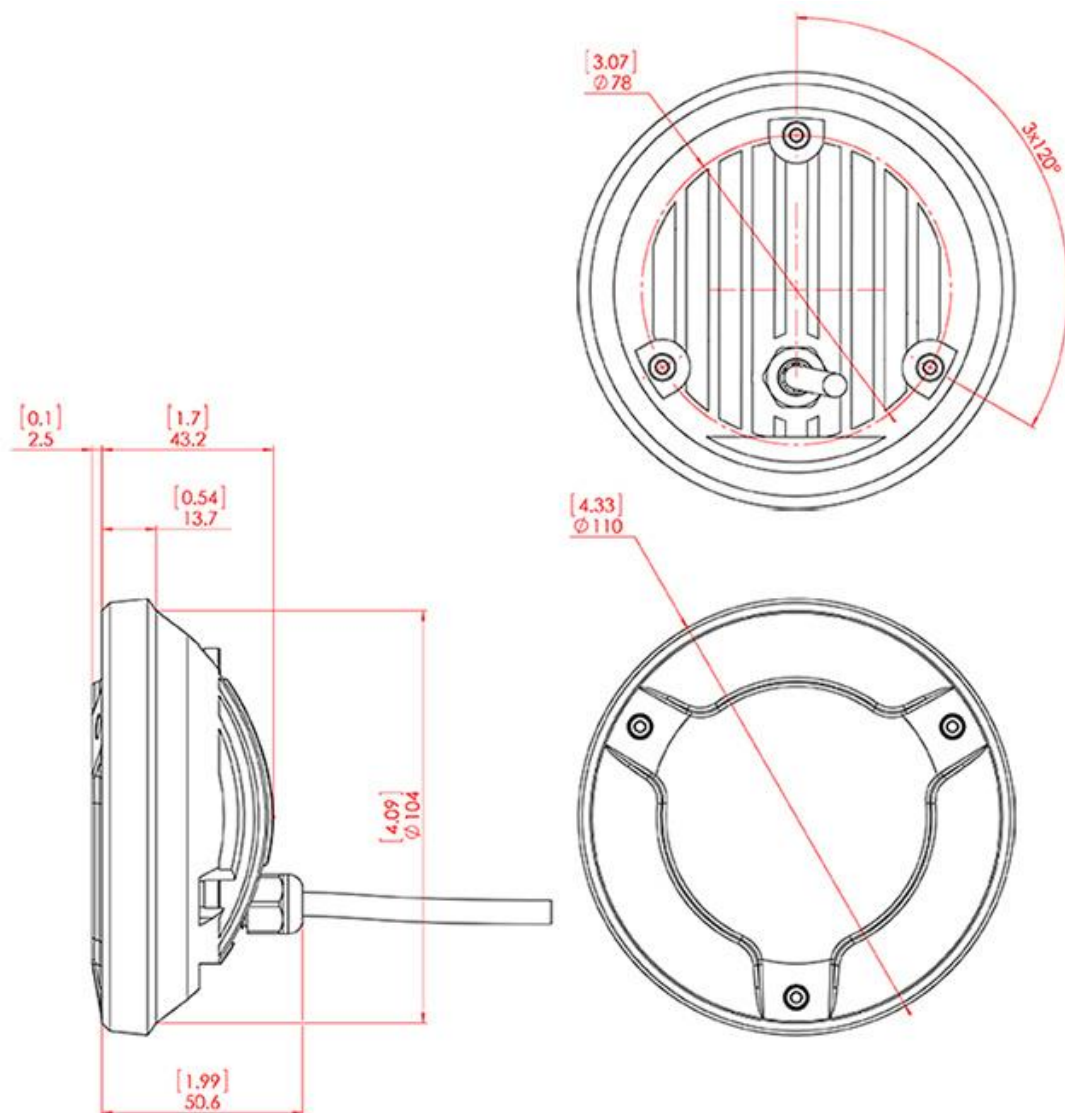
16. Useful life: not less than 30.000,0 aircraft flight hours.

17. Dimension: 4.33" Round x 1.79" (D = 110mm, H = 45.7mm).

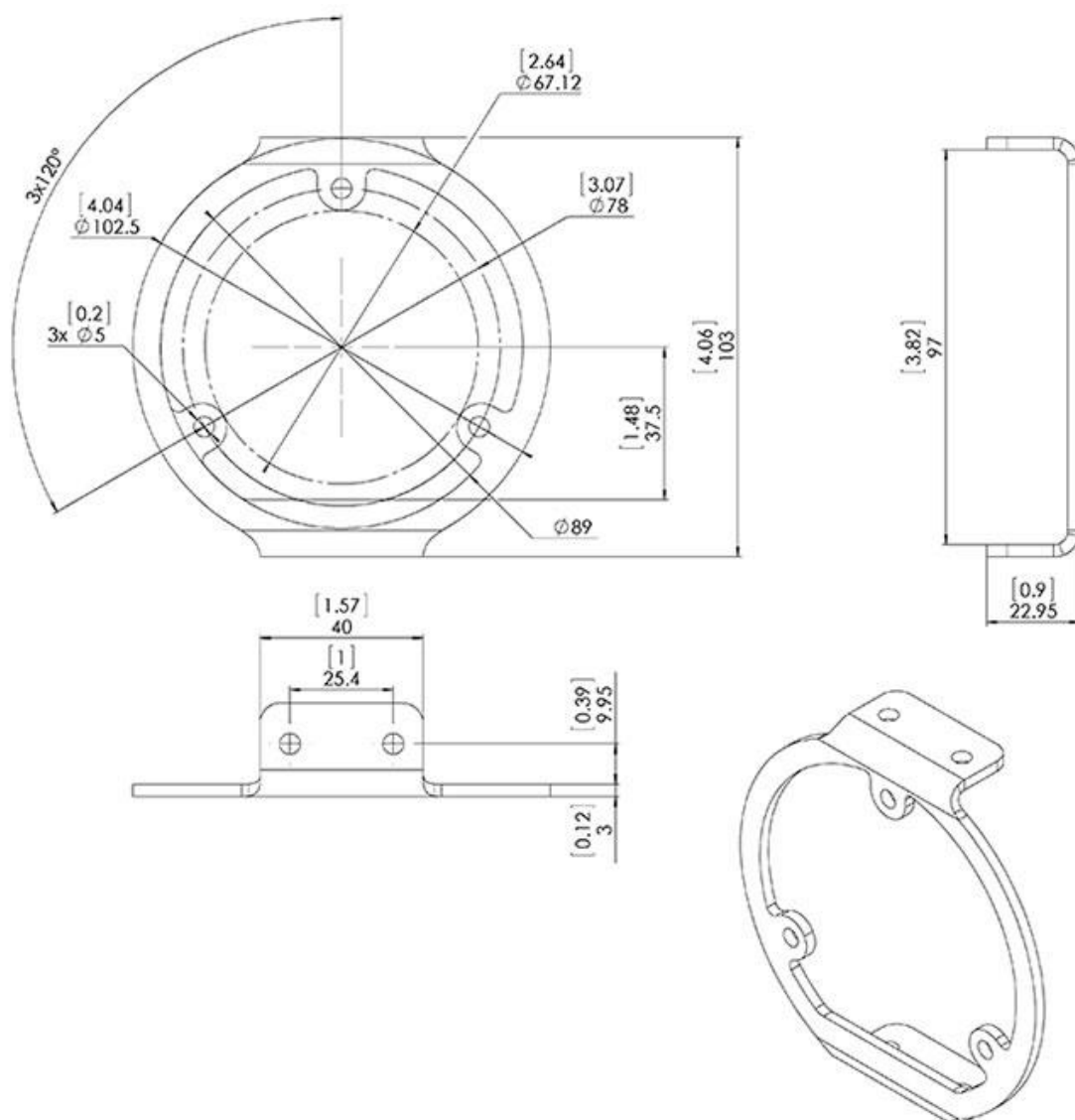
18. Material:

- a. Housing/Heatsink: Aluminum Alloy, natural anodizing
- b. Lens: Clear PMMA

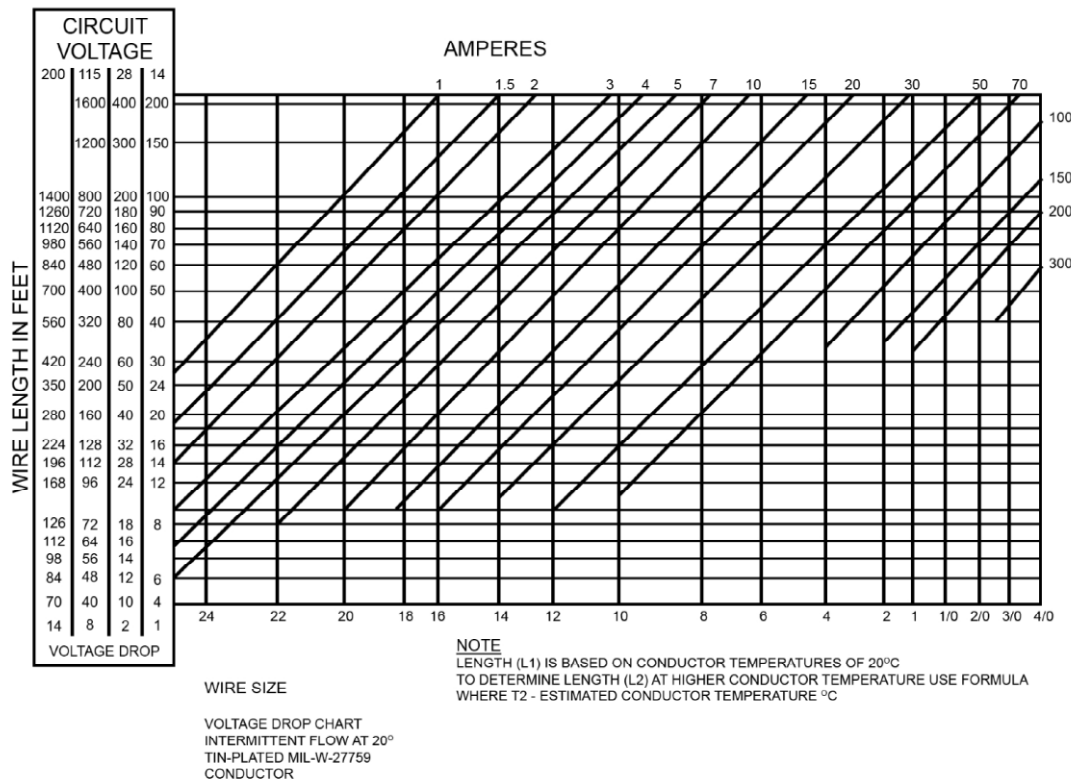
4. TECHNICAL DRAWING



BRACKET



5. WIRING CHART



6. CARE AND CLEANING OF YOUR AVEO ENGINEERING AVIATION

When you receive your Aveo Engineering Aviation Lights, they will have been factory polished and ready to install on the aircraft. Upon installation, just give the lights a good coat or two of a quality automotive polish. This should protect the lights from dirt and other environmental factors. Once or twice a month, just refresh the polish and hand buff to bring back the lights to factory like new condition.

If the lights need a deeper cleaning, they can be polished with a good automotive cleaner wax and/or a liquid polishing compound. The liquid polishing compounds can normally be found at automotive parts stores or an automotive paint store. After using a polishing compound, just give the lights another coat of an automotive polish and you will again protect the lights against dirt, etc.. An electric buffing machine, with a lamb's wool cover, can also be used for deeper cleaning and polishing. Under no circumstances should any petroleum based product be used to clean the lights.